Advaita Vedanta: Towards Unification of Knowledge

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ABSTRACT

This paper is centered on the narration of Swami Vivekananda about the science and philosophy of religion based on Indian *Sankhya* and *Vedanta* thought systems; the contents are taken from his lectures and discourses given at various places in United States of America and Europe, beginning with his epoch-making address at The Parliament of Religions, Chicago, in 1893, following his tour till end of 1896. He has explained to the western audience about the depth of ancient Indian philosophical thoughts which even touched upon scientific manifestations such as the creation of the universe from an infinitesimally small, yet with infinite energy primordial stage, both the micro-world and macro-world are built on the same plan, matter and energy are nothing but the same, indeterminacy to be the innate characteristic of nature, unity of nature is inbuilt through interconnectedness of its species etc. Some of his statements have been supported later through scientific discoveries. The ultimate goal of mankind in every domain is to achieve unity.

Keywords: *Sankhya philosophy, Advaita Vedanta, Swami Vivekananda, Unity of nature, Creation of the universe, Matter and energy, Indeterminacy of the physical world.*

INTRODUCTION

The paper “Unity of Knowledge: A Brief Overview” by the present author in the previous issue of this journal reported about unity of knowledge pertaining to Western Scholars (Paramguru 2024). Though the disciplines sharing knowledge ranged from natural sciences to social sciences, arts and humanities to psychology to religion; it was found that science stood at one extreme and religion, mostly covering Christian Religious School(s) of thought, at the other. In that context, it was also mentioned that the Indian thought according to Vedic and Vedanta philosophy will attract a lot of space, and hence, kept out of that paper with a commitment to bring them in later issue(s). The present paper is one resultant outcome of that commitment. Further, as regards religion in Indian context, reports are available that “Swami Vivekananda (1863-1902) – epoch-making spiritual leader of India who made Hinduism dynamic and practical, and urged modern humanity to combine Western science and materialism with India’s spiritual

culture for a sustainable civilization" (Majumdar, 2012, 1). Thus, based on such a solid ground, the present paper aims to examine up to what extent the unification of science and religion is effective in Indian context that too based on *Advaita Vedanta*. Though, in the earlier paper, the human personalities sharing the knowledge ranged from biologists to psychologists, neurologists to theologians and many others; in the present paper, the narrative of a single person namely Swami Vivekananda, the Indian monk will be discussed, which might have been reported by scholars in physics, medicine and religion.

HISTORICAL BACKGROUND

Vedic philosophy exists in India since ancient times, mostly depicting spiritual laws realized through deep observation by *rishis* (sagas) and transmitted through *srutti* (hearing and remembering) to next and next generations. Then came the *Vedantic* period when the *rishis* consolidated on Vedic knowledge by writing down the details to be preserved and transmitted further. Thus, various Upanishads authored by various sagas are available; yet, the focus of this article is centered on the narration of Swami Vivekananda, mostly in his seven lectures given in New York in the beginning of 1896, published as a book *The Science and Philosophy of Religion: A comparative study of Sankhya, Vedanta and other systems of thought* by Swami Vivekananda, and edited by Swami Saradananda (1915). In his lectures, Swamiji, as lucid as he is known to be, has covered systematically the *Sankhya* philosophy developed by *rishi Kapila* followed by the three steps of *Vedanta* philosophy namely, Dualistic *Vedanta*, Qualified monistic *Vedanta*, and *Advaita Vedanta*, the last is completely monistic. The time period when *Rishi Kapila* has developed his *Sankhya* philosophy "is not yet derived absolutely, but it must be more than five thousand years before present" (Raja 2017, 40). *Advaita Vedanta* has come subsequently and is supposed to be given final shape by *Rishi Adi Shankara*, the time period may be slightly later. However, Swami Vivekananda deserves all credit, first to make a strong and appealing statement at The Parliament of Religions, Art Institute of Chicago, on 11th September 1893; and then stayed back in USA till the end of 1896 to explain the American people the essence of *Vedantic* philosophy.

It will be prudent to understand the exact objective of Swami Vivekananda's this endeavor. Many authors, helped by the generous attitude of Ramakrishna Mission (specifically Advaita Ashram) in collecting, organizing and storing all the information about Swamiji, have covered each facet with width and depth (Majumdar 2012, Banerjee 2017, Vivekananda (Ed. Saradananda) 1915, Raja 2017, Samarpanananda 2013, Dwivedi 2014, Monto 2010, Gulati 2020a, 2020b). Besides, the voluminous Complete Works of Swami Vivekananda (CWSV) is also available. According to *Swami*

Vivekananda: His Life and Works (VHPA 2012), he was born in Shimla Pally, Calcutta on 12 January 1863 to mother Bhuvaneshwari Devi, a pious lady and father Vishwanath Datta, an attorney of Calcutta High Court; and was given the name Narendranath (4). Narendra, though started his education at home with his mother, soon got admitted to Metropolitan Institution of Ishwar Chandra Vidyasagar and passed his Entrance Examination in 1879. He had interest in wide range of subjects like philosophy, history, social sciences, arts, literature, classical music, sports and organizational activities. He also showed interest in scriptural texts and read Vedas, the Upanishads, Bhagavad Gita, Ramayana, Mahabharata, and other Puranas. Though he entered into college life at Presidency College, Calcutta in 1880, he changed over to Scottish Church College, Calcutta, next year and studied western logic, western philosophy and history of European nations; and completed his Bachelor of Arts Examination in 1884. He was a voracious reader with exceptional ability to comprehend, memorize and assimilate. He went ahead reading books on philosophy, astronomy, chemistry and others written by various authors. Most important, he got his best cherished learning about the truth on God from his revered Guru Ramakrishna Paramahansa. By 1891, he has become a true yogi and a saga of high intellect - Swami Vivekananda – already got himself well acquainted with the concepts of Kant, Hegel, Schopenhauer and many others; got well versed with life and teachings of Jesus Christ, Prophet Mohammed, and Lord Buddha. He has realized that “all religions speak the same truth” and he got an “intense desire to spread this wonderful message of Unity of Existence and Unity in Diversity” to entire mankind (23). Accordingly, all alone, in January 1891, he embarked upon the journey of all over the Holy Land of India to get first hand information about the state of religion in the Indian masses. The sight of the sad plight, poverty, sufferings of his countrymen, though brought a lot of pain, yet threw further light into the thought domain of this ‘wondering monk’ – material progress and spiritual uplift are not contradictory to each other, rather most complimentary and supplementary for mutual growth. “He was convinced that science and religion should and would join hands so that a new chapter may be written in human history”(24). Since then, “(H)he sowed the seeds of Vedanta in the west and scientific growth in India. He considered the synthesis of east and west as the best model for mankind and excellence” (Dwivedi 2014, 315). His actions during the years to come, though just around a decade due to his untimely death in 1902, have been history.

SCIENCE AND RELIGION DIVIDE

At that point of time science and religion were at logger heads. Swami Vivekananda himself started his lecture at New York during 1896 as: “There are two words, the microcosm and the macrocosm, the internal and the external. We get truths

from both of these by means of experience; there is internal experience and external experience. The truths gathered from internal experience are psychology, metaphysics and religion; from external experience the physical sciences. Now a perfect truth should be in harmony with experience in both the worlds"(Vivekananda 1915, 9). However, he laments saying – "Yet as a rule we find that many of these truths are constantly conflicting. At one period of the world's history the 'internals' became supreme, and they began to fight the 'externals'; at the present time the 'externals,' the physicists, have become supreme, and they have put down many claims of the psychologists and metaphysicians" (9). To put the divide between science and religion in exact situation, Swami Samarpanananda writes: "The beginning of the divide between science and religion may be attributed to Rene Descartes (1596-1650), who brought in the concept of the Cartesian divide through his X-axis and Y-axis" (Samarpanananda 2013, 40). Raja has also reported about Descartes' reductionist approach, and according to him, Sir Isaac Newton also contributed to the same approach and their statements in combine were called "Cartesian Newtonian paradigm" (Raja 2017, 75). One way, this divide prompted people to think matter and mind, God and the world, science and religion are eternally different; but the other greater damage of this paradigm to mankind was that all things in Universe are separate, not related and not interconnected. Obviously, Swami Vivekananda, who had a clear view of the inherent harmony between science and religion, had to put up his views which will be dealt in this paper in some detail. Of course, at this stage of his lecture, he stopped with this statement: "So far as my little knowledge goes, I find that the really essential parts of psychology are in perfect accordance with the essential parts of modern physical knowledge" (Vivekananda 1915, 9-10).

ADVAITA VEDANTA – WHAT IT GIVES

Vivekananda has "declared that science and religion go together only on a foundation of *Advaita* (monistic) *Vedanta* with its fundamental ideas of an impersonal God, the presence of the infinite within the finite, and a basic inter-connectedness of everything in the universe" (Majumdar 2012, 1). Here, an attempt is made to elucidate the fundamental ideas of *Advaita Vedanta*, one by one, to show-case its role as envisaged by Swamiji.

According to Mundaka Upanishad, knowledge is divided into two categories; one is *Intuitive knowledge* about God (*para vidya*), and the other is *Practical knowledge* about the world (*apara vidya*) (Samarpanananda 2013, 40). The knowledge about science as well as about the scriptures falls in the second category. Further, Vedanta relies on the validity of *pratyaksha pramana* (sense perception), and *anumana pramana* (reasoning), these two approaches are also followed by science (42). The third approach, namely *shabda pramana* (words of scriptures), creates problems of acceptability in the science sphere. The fact remains that the idea about God, soul, or creation cannot come through direct perception, or reasoning. Mostly, the religions have gathered such knowledge through the transcendental experience of the sagas, prophets or founders of such religions. It is believed in Hinduism that when the great sagas give up all their worldly connections and desires, meditate in a pure mind, they can attain a transcending state of mind called *Samadhi* when they can experience the light of God. Swamiji has also described about such a "meditative state" and says that "--- we see why the meditative state is always called the highest state by the *Yogi*, for to feel one's self as one with the *Purusha* is neither a passive nor an active state, but the meditative state. This is in *Sankhya* philosophy" (Vivekananda 1915, 52). The argument runs here that such specific meditative experience is not a mere experience, but a transcending one, does not melt ice of the materialist's stubborn mind. However, at a later stage of this paper, aspects covering how this *Purusha*, though perceived as the so called God, is just the 'consciousness'; as well as, Swamiji's own such meditative experience will be discussed. At this stage though, the *knowledge* remains unresolved between science and religion, we proceed forward with all the other features of *Advaita Vedanta* with a hope that some meeting point emerge somewhere.

Creation – The starting point

Creation remains an issue of utmost interest to mankind, belonging to both the groups of science and religion, because 'wherefrom we have come' and 'where are we going to' always remain the vital questions. Of course, the easy, eternal religious answer to such questions is 'we have come from God and will go back to Him', and scientists, recently, have told us that we have come from 'big bang' and are going towards 'big crunch'. However, our focus, here in this paper, is to discuss how Swami Vivekananda has envisioned this creation process from *Sankhya* and *Vedanta* theories. He cites the "*Rig Veda*", the oldest Indian scripture in existence, then refers to a "beautiful passage describing creation", which he terms as "most poetical" – "Where there was neither aught nor naught, when darkness was rolling over darkness, what existed?" – He says that the answer also lies there – "It (the Eternal One) then existed without motion" (14). Here, in fact, he has cited *Sukta* 129 of 10th *Mandala* of *Rig Veda*;

and 'the Eternal One' within bracket, refers to the state of 'nature', which the Hindu philosophers call *Avyaktam*, literally meaning "without vibration," or unmanifested (15). Then he begins with the way the creation manifested from *Prakriti* according to the *Sankhya* theory, he terms it '*Sankhya cosmology,*' and finally ends with the *Advaita* philosophy of *Brahman*. At first, he explains that we all use the word 'Nature', however, the old Hindu philosophers called it by two different names, *Prakriti*, which is almost the same as the English word 'Nature,' and by the more scientific name, *Avyaktam* ("undiferentiated"), out of which come atoms and molecules, matter and force, and mind and intellect. More precisely, *Avyaktam* is defined as the "equilibrium of the three forces," the first is called *sattwa*, which is the highest and is responsible for control of the other two; the second one is *rajas*, a little higher than the later and results in 'repulsion;' and the third one is *tamas*, which is the lowest one and results in 'attraction' (11). When *tamas* and *rajas* are in balance – there is no vibration, therefore, no creation, no evolution, which is referred to "It (the Eternal One) then existed without motion" cited above. However, *prana* and *akasa*, were latent in that 'Eternal One,' without any phenomenal manifestation; and the creation of universe started from this infinitesimally small, yet with infinite energy primordial stage, termed singularity – corresponding to *Vedantic* terminology of *Anidavatam* (no vibration) (Banerjee, 2017).

Creation – of the universe

The most extraneous part of the universe, what in modern times, we call gross matter, the ancient Hindus call it the *bhutas*, the external elements. *Akasa*, one of these *bhutas*, is the primal element out of which every gross thing proceeds. Along with it there is something else called *prana*, which may be defined as life, or vital energy, but must not be restricted to the life of man, nor identified as the spirit, or, *Atman*. The *prana* and the *akasa* exist as long as creation lasts, and they combine and recombine and form all gross manifestations of the universe (Vivekananda 1915, 14). At the beginning of a new creation, this *Avyaktam* begins to vibrate and blow after blow is given by *prana* to *akasa* causing condensation and gradually, through the forces of attraction and repulsion, atoms are formed. The *akasa*, by repeated blows of *prana* produces *vayu* or the vibratory state of the *akasa*, which in turn produces gaseous matters. The vibrations growing more and more rapid generate heat, which in Sanskrit is called *tejas*, gradually it is cooled off and the gaseous substance becomes liquid, *apa*, and finally solid, *prithivi* (15). Thus, at first, we have *akasa* vibrating, and then come heat, and then it becomes liquefied, and when still more condensed it appears as solid matter. The *Sankhya* philosophy believes that this process of creation or, evolution of the universe is followed with a process of involution, when it goes back to equilibrium, or, no vibration state. It goes back to the un-manifested condition in exactly the reverse way, i.e., from solid to

liquid, mass of heat to gaseous state, and then to atoms, and then to equilibrium state, and then the vibration stops and the cycle of evolution ends. The period starting from beginning of one evolution till the end of one involution is called a *kalpa*. We know from modern astronomy, may be just for the present evolution, that this earth and sun of ours are undergoing similar transitions (16).

There are certain characteristics of *akasa* and *prana*. *Prana* cannot work alone without the help of *akasa*. The *prana* cannot exist alone, or act without a medium, and in every state of it, as pure, or as other force, it can never be separate from *akasa*. Every movement that we see is a modification of this *prana*, and everything that we know as a form of matter, either as form or as resistance, is a modification of this *akasa*. The way we have never seen force without matter or matter without force; what we call force and matter being simply the gross manifestations of the two, and these when superfine, the old philosophers have called *prana* and *akasa*. Thus, creation is a "product of *prana* and *akasa* and is without beginning and end; it cannot have either, for it is eternally going on" (17).

Creation – of the little universe

Swamiji, in the very beginning of his lecture has referred to "human mind" as "our little universe." (1). Further, he has immediately stated that - "The macrocosm and the microcosm are, as it were, in the same groove, passing through the same stages vibrating in the same key" (2); and also repeats later - "The whole of the universe is built upon the same plan as one single man, or one little being" (24). This narration implies that both the human 'body' and 'mind' undergo similar manifestations like the gross bodies of our universe. The source is same, *akasa*, and *prana*; though it is also mentioned that, in case of living beings such as man, animals, and plants, "the seed for the body must come from the parents," therefore, "the theory also includes heredity and reincarnation too" (25). During his lectures, Swamiji proudly highlights - "It is startling to find that the philosophers and metaphysicians of India ages ago stated that mind is but matter in a finer form, --. And so is thought; and we shall find by and by that the intellect also comes from the same Nature which is called *Avyaktam*, the undifferentiated" (11). It may be mentioned here that in the earlier paper, Wilson (1998) has highlighted the significance of this basis of "'mind', its 'thinking', 'emotion', and other 'mental processes" including the nerve-centers in unification of knowledge (Paramguru 2024, 136). Swamijee, then cites "another proposition" stated by the ancient philosophers which is also "startling" is that - "Everything that is gross is composed of a combination of fine things, so the *bhutas* must be composed of certain fine particles, called in Sanskrit the *tanmatras*" (18). He has nicely explained about *tanmatras* with the example of the smell of a flower, when the gross matter 'flower' is visible by the naked eye, the finer

tanmatras, fine molecules of that flower, only perceived as smell by anybody around the flower, but not visible by the naked eye. Further, he says – "these *tanmatras* can again be subdivided into atoms" (18). Here, a series of fine elements come into play. First of all, we have the gross elements, which we can feel externally, and composing them are the finer elements, which come in contact with the nerves of the nose, eyes, and ears. Thus, the nose, eyes, and ears etc., are just the external instruments connected to the nerve centers so as to form the organs, or, *indriyas*, which are the real seats of perception. All these *indriyas* combined, plus the internal instrument or *antahkarana*, form the finer body of man, called the *linga* (or *sukshma*) *sarira*. Behind the *indriyas* is the *manas*, the *chitta* in *vriti*, what might be called the vibratory state of the mind. Then comes the reaction, the will, may be called *Buddhi*, the determining or decisive faculty of mind. Another thing also accompanies all the acts of the mind – called egoism, the *ahamkara*, the self-consciousness, and behind that is what is called *Mahat*, the intelligence, the highest form of Nature's existence. Behind the intellect is the true Self of man, the *Purusha*, the pure, the perfect. It may also be called the *soul*, or the *Atman*.

Creation – without God!

At this stage of narration, Swamiji makes a statement - "I must here tell you that some of our best psychologists do not believe in a personal God in the sense in which you believe in Him. The father of all psychologists, *Kapila*, denies the existence of God as Creator. His idea is that a personal God is quite unnecessary; *Prakriti* is sufficient to work out all that is good" (22). However, he admits a peculiar kind of God. He says that each one of us is struggling to get free, and when man becomes free he can melt away into *Prakriti* for the time being, to come out at the beginning of the next cycle an omniscient and omnipotent being and be its ruler. Thus, he says, you and I and even the humblest beings will be gods in different cycles. *Kapila* arguably stresses that there can be such a temporal god, but never an eternal God, eternally omnipotent and eternally ruler of the universe. He further continues that wherever the word God is mentioned in our Scriptures, the Vedas, it means those perfected souls who have become free.

At this point, a question arises, in absence of a creator God, what is the cause of these finer materials like *tanmatras*, and also the organs etc.? Here, Swamiji says, "A very startling and curious answer is given by our psychologists, - self-consciousness" (19). The *Sankhyas* believe that each existing material in the universe has some portion of consciousness as its material. Rather, it will be prudent to say that the first essential manifestation of *prakriti* in the cosmos is *Mahat*, we may call it universal intelligence; and consciousness (including all the grounds of consciousness, sub-consciousness, and super-consciousness) is only a part of this intelligence, which is universal. Further,

out of *Mahat*, is manufactured the egoism, out of which are manufactured two sets of fine materials – all nerves and nerve centers including *indriyas*, as well as *tanmatras*. Here, the *Sankhya* philosophy brings out another factor, 'sentient'/'insentient'. Everything in nature, *Prakriti* itself, is *jada* (insentient). Mind, intelligence, and will, all its products, are insentient; but they are all reflecting the sentiency, the *Chit* (intelligence) of some Being who is beyond all this, and whom the *Sankhya* philosophers call *Purusha*. What is then this *Purusha*? It is neither intelligence nor *buddhi* (will), but yet it is the cause of both of these; it is only His presence that sets them all vibrating and combining. The very basis of sentiency lies in the *Purushs*, and it is the nature of the *Purusha*, and 'Katha Upanishad, V, 13,' has rightly said – "In this world of insentiency that *Purusha* alone is sentient" (44). That is to say, this *Purusha*, taking him in the universal sense, is the impersonal God of the universe; and taking him in the human sense, is the small God of the human being.

Creation – completed by Advaita Vedanta

According to Swamiji, the creation manifested till the present stage by *Sankhya* philosophy is pretty good, and henceforth, the *Vedanta* philosophy takes over. In fact, the entire basis and the compact structure brought out by the *sankhya* philosophy provide a solid foundation for the *Vedantists* to accept and move forward, however, there are just *three* positions taken by the *Sankhyas* which need to be improved upon. The first position is that intelligence or anything of that sort does not belong to the soul, it belongs entirely to *Prakriti*, therefore, making the soul simply a quality-less, and colorless proposition. The second one is that there is no God, and the third one to be contended with is that there cannot be infinite number of souls. The *Vedantists* solve the first position by teaching us that the soul is not just a quality-less, and colorless proposition, but it is in its essence unlimited or Absolute Existence-Knowledge-Bliss. They show us that the three grand basic ideas of life, such as, I exist, I know, and I am blessed, which come from within and are combining themselves with the external things to manufacture phenomenal existence, knowledge and love, are called by the *Vedantists* "Existence Absolute, Knowledge Absolute, Bliss Absolute" (58). Thus, the soul gets its essence unlimited status from the *Vedantists*, who proceed further to give shape to the other two propositions. All the three forms and phases of *Vedanta*, namely, dualistic, qualified monistic, and monistic, first take this position - that God is not only the instrumental but also the efficient cause of this universe, that everything which exists is He. The second step in *Vedanta* is that these souls are also a part of God, one spark of that Infinite Fire, from which millions of small particles fly. The non-dualistic *Vedantist* solves the problem by maintaining that there is really no part; that each soul is really not a part of the Infinite, but actually is the Infinite *Brahman*. Then how can there

be so many souls? The answer is that the way sun reflected from millions of globules of water appears to be millions of suns, and in each globule is a miniature picture of sun-form; so all these souls are but reflections and not real. He has not been divided, but only appears to be divided, and this apparent division, or *maya*, is caused by looking at Him through the network of time, space, and causation. Thus, the *Advaitist's* final conclusion is the same as Shankaracharya's *Nirvan Shatka I* - "I am neither the mind, nor the body, nor am I the organs; I am Existence-Knowledge-Bliss Absolute; I am He, I am He" (65).

Echoes of Vedanta – in modern science

Swami Vivekananda had the knack of explaining philosophical thoughts of *Vedanta*, not as abstract philosophical jargons, but as factual scientific truths. He used to bring in suitable similes and comparisons including common scientific facts which used to be attractive, besides clarifying the points in minute detail. It is understood that during his Chicago Parliament of religion sessions in 1893, as well as his other meetings until 1896 end, eminent scientists of that time, namely, Lord Kelvin, Prof. Von. Helmholtz, Nicholas Tesla, and others used to be in the audience. Swamiji has also told and written at various places about his interactions with them. Some of these interactions, specifically his utterances based on *Vedantic* theory appear as echoes in modern science. Even, Swamiji himself has boldly declared in his Chicago address on 19th September, 1893, that – "… Vedanta philosophy, of which latest discoveries of science seem like echoes …" (Banerjee 2017, 2). A few of them, where glimpses of scientific truths were told and either got scientific confirmation after some years, or still waiting for such confirmation, are placed below.

<u>*Macro-world and micro-world built on same plan*</u>: It is known that during 1890, Swamiji had a deep meditation below an old Peppul tree beside a stream near Almorah (India), after awakening, he wrote down – "the scheme of the universe of both micro-world and macro-world are built on a same plan … the whole universe exists in the atom" (Banerjee 2017, 1). This example serves two purposes here; first, he gets his statement from 'meditation' which can be termed as transcendental experience, and second, the scientific echo of his statement. Similar statements such as "macrocosm and microcosm are built on exactly the same plan" (Vivekananda 1915, 40), and "(T) this universe does not come from out of atoms, they may be the secondary, tertiary state" (27), are also found in his lectures during 1896. During that period of time, such vision of Swamiji was *anti-science*; then the general scientific belief was that atoms are the smallest particles of the matter and they are indivisible. It is only in 1913; Rutherford and Bohr's planetary model of atomic structure came to light, which has seen further developments, and at present, "during 21st century, the string based theory, termed as the theory of

everything, is trying to visualize the entire scheme of the universe as a unified field" (Banerjee 2017, 2). It is strange, but a fact that Swamiji could pronounce this happening during 1890s based on his meditation and his knowledge of *Advaita Vedanta* which have been proved by later science discoveries.

***Matter and Energy are the same*:** This 'matter and energy', or, '*akasa* and *prana*' issue has been aptly described by Raja in his book (2017) and the referral point was the interview on *Maya* by Swami Vivekananda for the benefit of the French actress Sarah Bernhardt on 5th February, 1896 at New York. Incidentally, the famous scientist Nicholas Tesla was present there. While explaining, Swamiji said – "Thus for example, the force and matter are one and the same" (74). On hearing this statement, Tesla was shocked, because at that point of time, the scientists were believing energy (force) and matter to be entirely different entities. Obviously Tesla wanted more explanation, and Swamiji explained him all details about *Akasa*, *Prana*, *Kalpa*, and how they perform according to *Vedanta* theory. Tesla was charmed to get all these explanation, and said – "According to me, they are the only theories modern science can entertain" (87). Even he came forward to prove this mathematically, which Swami Vivekananda shared in his letter to E. T. Sturdy on 13th February, 1896, "Mr. Tesla thinks he can demonstrate mathematically that force and matter are reducible to potential energy. I am to go and see him next week to get his new mathematical demonstration" (Banerjee 2017, 4). However, the destiny was different, it was not Tesla in 1896, but Albert Einstein in 1905 was the person to get credit for demonstrating the equation $E = mc^2$ with due notation. However, by 1905, Swami Vivekananda was no more and it remained unseen and unknown – how he would have felt then, had he been alive!

***Indeterminacy of the physical world*:** Swami Vivekananda, during 1896, while talking about God, Absolute, Perfection, Freedom, of course each of these terms merge at one centre, he brings in the issue of indeterminacy of each of these terms when viewed through the prism of time, space, and causation. On one occasion, he said - "When I look at God through the network of time, space, and causation, I see Him as the material world. When I look at Him from a little higher plane, yet through the same network, I see Him as an animal, a little higher as a man, a little higher as a God, but yet He is the one Infinite Being of the universe, and that Being we are. I am that, and you are that. Not part of it, but the whole of it" (Vivekananda 1915, 70). What he wants to convey here is that, just by viewing the (Infinite, Absolute, Perfect, Free) God through the network of time, space, and causation, he observes finite, imperfect, and bound species of material and living world. That means Absolute is manifesting as many finite forms through the veil of time, space and causation; all these three cannot exist

separately, because each one has entirely dependent existence. Here, Swamiji's explanation, through the above uncertain understanding of the Absolute, hints at indeterminacy to be the innate characteristic of nature, when viewed through the prism of time, space, and causation. Decades later, precisely in 1927, it echoed in Warner Heisenbeg's uncertainty principle, which states that "the position and velocity of an object cannot both be measured exactly, at the same time, even in theory. The very concept of exact position and exact velocity together, has no meaning in nature" (Banerjee 2017, 6). Alas! Once again Swamiji was not alive to see and respond to this.

***Interconnectedness in nature*:** The terms 'ecological balance', 'conservation of all species,' and 'sustainability' has gained ground since mid-twentieth century, because it has been realized that interdependence of all species in nature is an eternal condition. Earlier in this paper, the issue of "Cartesian Newtonian paradigm", created by a section of the scientific community during 16-17th century, has been discussed (Raja 2017, 75). This divide, besides prompting people to think science and religion are eternally different, also induced the mankind to think that all things in Universe are separate, not related and not interconnected. This brought out a strong feeling of selfishness, greed, and inhuman thoughts culminating in colonialism, slavery, exploitation of Mother Nature, and environmental hazards (76). Fortunately, the realization of interdependence of all species in nature has brought in the new topics such as 'sustainable development,' 'environment impact assessment,' 'maintaining eco-balance' have become highly pertinent subjects of the 21st century. Though, these subjects were not so well-known during the late 19th century when Swami Vivekananda was making his epoch-making speeches in United States of America and Europe, he was highlighting the specific points like, "(T)the whole universe is one of perfect balance. I do not know, but some day we may wake up and find that the mere worm has something which balances our manhood," and "(T)the whole universe is only a wave and a hollow; there can be no wave without a hollow. Balance everywhere," his caution towards Nature's balance stands a century ahead (CWSV, 41). Needless to mention that 'Unit of Nature' (Doherr 2015), and 'Sustainable Science' (Kates 2011) have been identified also by western scholars to be the important parameters towards unifying knowledge (Paramguru, 2024).

CONCLUSIONS

Our goal of this paper is to achieve unity of knowledge. Can *Advaita Vedanta* provide it? To hope further, can it unite science and religion together? As regards the science, Swami Vivekananda says – "Science is nothing but the finding of unity. As soon as science would reach perfect unity, it would stop from further progress, because it would reach the goal" (CWSV, 329). On religion he says - "You cannot go beyond the idea of the Absolute, the idea of the One, out of which everything in the universe has evolved" (Vivekananda 1915, 131). The last word of *Advaita is*, *Tat tvam asi*, - "That thou art" (132).

REFERENCES

1. Banerjee, Sudhish C., 2017. "Swami Vivekananda – as the Scientist." *International journal of Advanced Research in Physical Science (IJARPS)* 4(11): 1-10. ISSN No. (Online) 2349-7882. *www.arcjournals.org.*
2. CWSV: Complete Works of Swami Vivekananda. https://www.vedanta-nl.org/CWSV.pdf.
3. Doherr, Detlev., 2015. "Alexander von Humboldt's idea of interconnectedness and its Relationship to interdisciplinary and communication." *Systemics, Cybernetics and Informatics* 13(6): 47-51.
4. Dwivedi, B. N., 2014. "Swami Vivekananda's interaction with scientists and his appreciation of them: celebrating his 150th birth anniversary." *Current Science* 106(2, 25th Jan): 315-317.
5. Gulati, Vivek., 2020A. "Vivekananda's Philosophy – Blending Philosophy and Science." *IJARIIE-ISSN (O)-2395-4396* 6(1, 12773): 1389-1399. www.ijariie.com.
6. Gulati, Vivek., 2020B. "Vivekananda: An Intuitive Scientist." *IJARIIE-ISSN (O)-2395-4396* 6(3, 12774): 1934-1945. www.ijariie.com.
7. Kates, Robert W., 2011. "From the Unity of Nature to Sustainability Science: Ideas and Practice." CID Working Paper No. 218. Centre for International Development, Harvard University. Cambridge, MA: Harvard University, March 2011.
8. Majumdar, Sisir K., 2012. "Vivekananda on Science and Religion." *Frontier* (January 8-14, 2012) 44(26): NOTE. *http://frontierweekly.com>vol>note-44-26.*
9. Monto, Geethanjali., 2010. "Swami Vivekananda's use of science to communicate spirituality." *Current Science* 98(5, 10 Mar): 711-712.
10. Paramguru, Raja Kishore., 2024. "Unity of Knowledge: A Brief Overview." *Towards Unification of Sciences* 2(2): 132-140. https://philosophyofnature.org.in.
11. Raja, M. L., 2017. *Swami Vivekananda and Modern Science*. Kochi: Kurukshetra Prakasan.

12. Samarpanananda, Swami, 2013. “Swami Vivekananda: Bridging the Cartesian Divide of Science and Religion.” *Indore Management Journal* 4(4, Jan-Mar): 40-46.
13. S V. 2012. Swami Vivekananda: His Life and Works. With excerpts from “The Complete Works of Swami Vivekananda.” (VHPA 2012). VHPA Camp. 2012. https://dc.vhp-america.org/wp-content/uploads/2012/06/SWAMI-VIVEKANANDA-Life-and-Works.pdf.
14. Vivekananda, Swami, 1915. *The Science and Philosophy of Religion: A comparative study of Sankhya, Vedanta and other systems of thought*. Ed. Swami Saradananda. Second edition, Ramkrishna Math, Publisher: Brahmachari Kapila, Calcutta: Udbodhan Office.
15. Wilson, Edward, O., 1998. *Consilience: The unity of knowledge*. Vintage Books, A Division of Random House, Inc. New York, NY.